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**BUREAU OF WASTE PREVENTION
DIVISION OF CONSUMER AND TRANSPORTATION PROGRAMS**

**Summary of Comments and Response to Comments
on the Proposed Regulation and Proposed Amendments to the
State Implementation Plan for Ozone; and**

**Findings under the Massachusetts
Low Emission Vehicle Statute, M.G.L. c. 111, Section 142 K.**

310 CMR 7.40:

**The Massachusetts
LOW EMISSION VEHICLE PROGRAM**

Regulatory Authority: M.G.L. c. 111, Sections 142A through 142M

June 2004

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TABLE OF CONTENTS

I.	SUMMARY OF AND RESPONSE TO COMMENTS ON 310 CMR 7.40: THE LOW EMISSION VEHICLE PROGRAM REGULATION	3
II.	FINDINGS UNDER THE MASSACHUSETTS LOW EMISSION VEHICLE STATUTE	6

I. SUMMARY OF AND RESPONSE TO COMMENTS ON 310 CMR 7.40: THE LOW EMISSION VEHICLE PROGRAM REGULATION

Comments were received from the following organizations:

- 1) Alliance of Automobile Manufacturers
- 2) American Lung Association of Massachusetts, Inc.
- 3) B.O.L.D Teens (Breath of Life Dorchester Teens)
- 4) Clean Water Action Committee
- 5) DaimlerChrysler Corporation
- 6) Ford Motor Company
- 7) General Motors
- 8) Honda (American Honda Motor Co., Inc)
- 9) Massachusetts Public Interest Research Group (MASSPIRG)
- 10) Nissan North America, Inc.
- 11) Vermont Department of Environmental Conservation

The Massachusetts Department of Environmental Protection (the “Department”) filed amendments to 310 CMR 7.40, the Low Emission Vehicle (LEV) Program regulations, with the Massachusetts Secretary of State as an emergency regulation on December 19, 2003. These amendments were effective upon filing. In order to make the regulations permanent, the Department solicited public comment on the regulation to comply with the public review process requirements of M.G.L. Chapter 30A. Relevant comments have been summarized and organized into the following groupings:

- A. General Comments in Support
- B. Air Quality and Public Health Issues
- C. Statutory and Regulatory Authority
- D. Alternative Compliance Plan

A number or sequence of numbers (as noted above) indicating which organization made the comment follows the comments in this document.

A. General Comments in Support

1. **Comment:** The Alliance of Automobile Manufacturers, DaimlerChrysler, and Ford Motor Company support Massachusetts’ efforts for clean air and note the “great strides” made in reducing vehicle emissions. (1)(5)(6)

Response: The Department agrees with this comment.

2. **Comment:** Numerous organizations support the amendments to 310 CMR 7.40, the LEV program, which will provide for cleaner air in Massachusetts. (2)(3)(4)(9)(11)

Response: The Department agrees with this comment.

3. **Comment:** The LEV II Program and the ZEV amendments, will provide compliance flexibility to the manufactures, expand consumers' choices, promote the development of other advanced technologies, and lead to the availability of cleaner, more efficient vehicles in MA sooner than they otherwise would be. (2)(3)(4)(9)(11)

Response: The Department agrees with this comment.

B. Air Quality and Public Health Issues

4. **Comment:** Numerous organizations support the proposed regulation for providing reductions in air pollutants from vehicular emissions including such serious air pollution problems as ground-level ozone, fine particulate matter, nitrogen oxides and greenhouse gases like carbon dioxide. (2)(3)(4)(9)(11)

Response: The Department agrees with this comment.

5. **Comment:** Although Massachusetts has taken significant strides in recent years to reduce air pollution, the incidence of asthma, asthma attacks, lung disease, and other respiratory illnesses continues to rise in Massachusetts. Emissions from vehicles (tail pipe emissions) are a major contributor to the negative health impacts on Massachusetts residents and a further reduction in those tail pipe emissions is necessary in order to improve the air quality in Massachusetts as well as the health of the residents. (2)(3)(4)(9)

Response: The Department agrees with this comment.

6. **Comment:** The Alliance of Automobile Manufacturers, in conjunction with manufacturers, commented that Massachusetts should discontinue the LEV II program and revert to the Federal Tier II program for the following reasons: (1)(5)(6)

- Emissions modeling has demonstrated that the Federal Tier II program would be as effective in reducing emission in MA as LEV II.
- The Tier II program is better suited to MA in that it focuses on reducing Nitrogen Oxide (NO_x) emissions, where-as LEV II focuses on Non-Methane Organic Gases (NMOG).
- Emission standards specified in LEV II are not realistic because CA Certified vehicles are designed to run on cleaner CA Fuels, hence they don't operate as cleanly with non CA fuels, such as that used in MA.
- ZEV requirements in MA would have minimal emissions reductions related benefits while costing large amounts of money, effort, energy, and resources that could otherwise be put towards reducing emissions from other sources or promoting the placement PZEV and AT PZEV vehicles in MA.

Response: As Part of the Department's 1999 rulemaking process, the Department assessed the air quality impacts of adopting the California LEV II standards, including the modifications to the ZEV mandate, as compared to the impacts of having federal standards in-place in Massachusetts. The results of this analysis showed that the adoption of the LEV II standards, including the ZEV mandate, in the aggregate would achieve greater emission

reductions than the federal standards. In addition, CARB found that the amended ZEV regulations remain an essential component of long-term air quality strategy because of the promise and ultimate necessity of zero-emissions technologies.

Under M.G.L. c. 111, §142K, the DEP looks at the California LEV program, including the ZEV piece, as a whole and because the modifications to the ZEV mandate were designed by CARB to achieve the same level of emissions benefit as the ZEV mandate included in LEV II, and again in the 2001 ZEV Amendments, the 1999 technical analysis is still valid.

The Federal Tier II program does include a corporate average nitrogen oxide (NO_x) standard, which enables manufacturers the flexibility to certify some models above and some models below the standard. The Department's concern is that this would allow manufacturers to place larger, higher polluting vehicles in MA than would otherwise be permitted under the current LEV II requirements. Further, as stated above, the technical analysis performed in 1999 is still valid and demonstrated that in the aggregate, the LEV II standards, including the ZEV mandate, would achieve greater emission reductions than the federal standards.

In 2006, the Federal Government will require that all gasoline contain significantly lower sulfur levels enabling the emission control equipment to operate effectively over the useful life of the new vehicles. In addition, the lower sulfur gasoline will reduce emissions from all gasoline vehicles already on the road—from less degradation of their catalytic converters and from fewer sulfur compounds in the exhaust. This will mitigate any differences in emissions that may exist between vehicles operated in Massachusetts and California

C. Statutory and Regulatory Authority

7. **Comment:** Massachusetts has not followed the rule making process as specified under Section 177 of the Clean Air Act. (1)(5)(6)(7)(8)

Response: The Department believes that its rule making process fully complies with the requirements of Section 177 of the Clean Air Act, including the lead time requirement.

D. Alternative Compliance Plan (ACP)

8. **Comment:** Numerous organizations commented on the voluntary ACP contained in subsection (14) of 310 CMR 7.40 and suggested revisions to the plan as previously adopted at the end of 2002. These comments also addressed the need for Section 177 states to work together to develop a common Northeast ACP. (1)(5)(6)(7)(8)(10)(11)

Response: The Department agrees that the ACP may need to be amended, particularly in light of the 2003 revisions to the base California ZEV mandate, which the Department has adopted as a final regulation. On March 17, 2004, following the close of the public comment period under M.G.L. c. 30A, the Department received suggested revisions to the ACP from Ford Motor Co. on behalf of DaimlerChrysler, Ford, General Motors, Honda, Nissan, Toyota, and Volkswagen. Because the Department cannot consider these comments as part of the public record for this regulation, the Department has finalized the regulation and has

omitted the ACP. However, the Department will initiate discussions with the automobile manufacturers and Section 177 states on the ACP. Following these discussions, the Department may amend 310 CMR 7.40 to adopt a revised ACP.

II. FINDINGS UNDER THE MASSACHUSETTS LOW EMISSION VEHICLE STATUTE

1. Statutory Requirement, M.G.L. c. 111, Section 142 K (a)

The Massachusetts Low Emission Vehicle statute provides in relevant part:

“...the Department of Environmental Protection, hereinafter referred to as the department, shall adopt motor vehicle emissions standards based on the California’s duly promulgated motor vehicle emissions standards of the state of California unless, after a public hearing, the department establishes, based on substantial evidence, that said emissions standards and a compliance program similar to the state of California’s will not achieve, in the aggregate, greater motor vehicle pollution reductions than the federal standards and compliance program for any such model year. The department shall publish issue detailed written findings before and after holding a public hearing pursuant to this paragraph and said hearing shall be subject to the provisions for public hearings contained in chapter thirty A. ...”

2. Technical Analysis and Findings

In accordance with M.G.L. c. 111, Section 142K, the Department assessed the air quality impacts of adopting the California LEV II standards, including the modifications to the ZEV mandate, as compared to the impacts of having federal standards in-place in Massachusetts. This assessment was part of the Department’s rulemaking process in 1999. The Department engaged the services of Cambridge Systematics, Inc. through a contract with the Northeast States for Coordinated Air Use Management (NESCAUM) to perform a technical analysis prior to the adoption of the standards. The results of this analysis showed that the adoption of the LEV II standards, including the ZEV mandate, in the aggregate would result in the lowest level of on-road motor vehicle emissions in Massachusetts for NMHC, NO_x, CO, and air toxics. Because CARB’s 2003 modifications to the ZEV mandate will achieve a greater emissions benefit than the existing ZEV mandate, the 1999 technical analysis is still valid for the adoption of the ZEV mandate adopted by CARB on December 19, 2003.

Adoption of the recent California LEV and ZEV mandate amendments, which require that manufacturers certify vehicles to the most stringent standards while developing and introducing advanced technology vehicles, will result in additional emission reductions. Incorporation of the amendment in the Massachusetts LEV program will ensure the cleanest vehicles in the Massachusetts fleet and that the Massachusetts LEV program is consistent with California’s LEV program.

Therefore, based upon the Department’s technical analysis as set forth in the Department’s Background Document and Technical Support to the proposed amendments, the Department

finds that the California's Low Emission Vehicle program, including the ZEV mandate, provides Massachusetts with greater motor vehicle pollution benefits than the current federal motor vehicle emission control.